

# The unfortunate degradation of Fortune Creek

A *Shuswap Passion* column for the Shuswap Market News

By Jim Cooperman

While more people are now aware that Shuswap water from Duteau Creek has been supplying Vernon residents and farmers for many decades, few know that Shuswap water from Fortune Creek has also supplied the City of Armstrong since its early days. As a result of some complaints this spring regarding agricultural practices, I recently toured the area and was astounded to observe a creek so filthy that it reeked and resembled a cesspool. Once again, a massive amount of manure spread on top of the snow in late winter has seriously polluted the Shuswap watershed.

But manure is not the only problem with the creek, as this watercourse has been seriously impacted by development since the early days of settlement. The creek was named after A.L. Fortune, the first settler in the Spallumcheen Valley and one of the "Overlanders" who journeyed across Canada to seek their fortunes in the gold fields. In 1866, when he first set sight on the Shuswap, he remarked, "Thank God...this is better than gold!" His wife arrived from Ontario in 1874 on a boat adorned with flags, as she was the first white woman to come to the Spallumcheen.

Natural creeks typically meander through valleys and often change courses during high water. To farm this land, the first settlers likely channeled the creek to maximize the growing potential of the valley land and diverted some of the water to irrigate their fields. The next major impact to the creek occurred when the Shuswap-Okanagan Railway line was constructed adjacent to the creek in 1891. The railway helped spur the development of the town of Armstrong, which by the turn of the century was large enough to require a water system.

Fortune Creek was the ideal source for the town, and a log dam was constructed in 1903 where the creek flows out of a steep, rocky canyon. A hydroelectric system was added in 1906 that supplied power to the town until the early fifties. It wasn't until 1966, that the last leaking section of the old 10-inch diameter, wood-stave waterline was replaced with a cast-iron pipe.

The forested upper Fortune Creek watershed stands in direct contrast to the channeled, polluted, and, at times, waterless lower section. The creek serves the residents of Armstrong well, as the water quality is very high due to the fact that most of the upper watershed area is protected inside Silver Star Provincial Park. While during most years there is enough water available for the town and other nearby residents, often, during dry spells there is an inadequate supply of water for the fish downstream.

At one time, salmon likely spawned in the creek, but now the creek only provides rearing habitat for juvenile coho and Chinook, as well as habitat for both adult and

juvenile rainbow trout. Other fish in the creek include shiners, sculpins, suckers, northern pikeminnows, chub and carp. During every year since 1999, the section of Fortune Creek just north of Armstrong has gone dry and water temperatures farther down the creek become lethally warm for the fish. A number of studies have been conducted that show how the fish are struggling due to a lack of riparian vegetation combined with creek diversions that remove up to 92 percent of the water during the low flow periods of July/August and January to March.

During these periods of low flows, reservoirs constructed in the park in 1970 and 1992 help to augment the water supply for Armstrong water users. Occasionally, during severe droughts, the city switches to one of its two deep wells to maintain the water supply. However, efforts to release additional water from the reservoirs for the fish have not been successful, as the extra flow disappears underground.

The Ministry of Environment responded quickly to the complaints about the manure spreading and took water samples. These complaints were unlikely new to the ministry, as one of the fisheries studies describes how "...water quality deteriorated in the downstream reaches of Fortune Creek as a result of field runoff and numerous drainage pipes that enter the creek." The deterioration is so serious that it has led to "a nutrient overload, large fluctuations in dissolved oxygen and pH levels harmful to fish."

Currently the City of Armstrong is developing a long-term Master Water Plan to that includes providing a better system for managing water supplies during dry spells and avoiding the necessity of adding a water filtration plant by demonstrating to the Health Authority that the water will continue to be very high in quality. But while Armstrong continues to benefit from clean Shuswap water and there is demand for more, the Shuswap River and Lakes continue to be at the receiving end of warm, polluted Fortune Creek water.